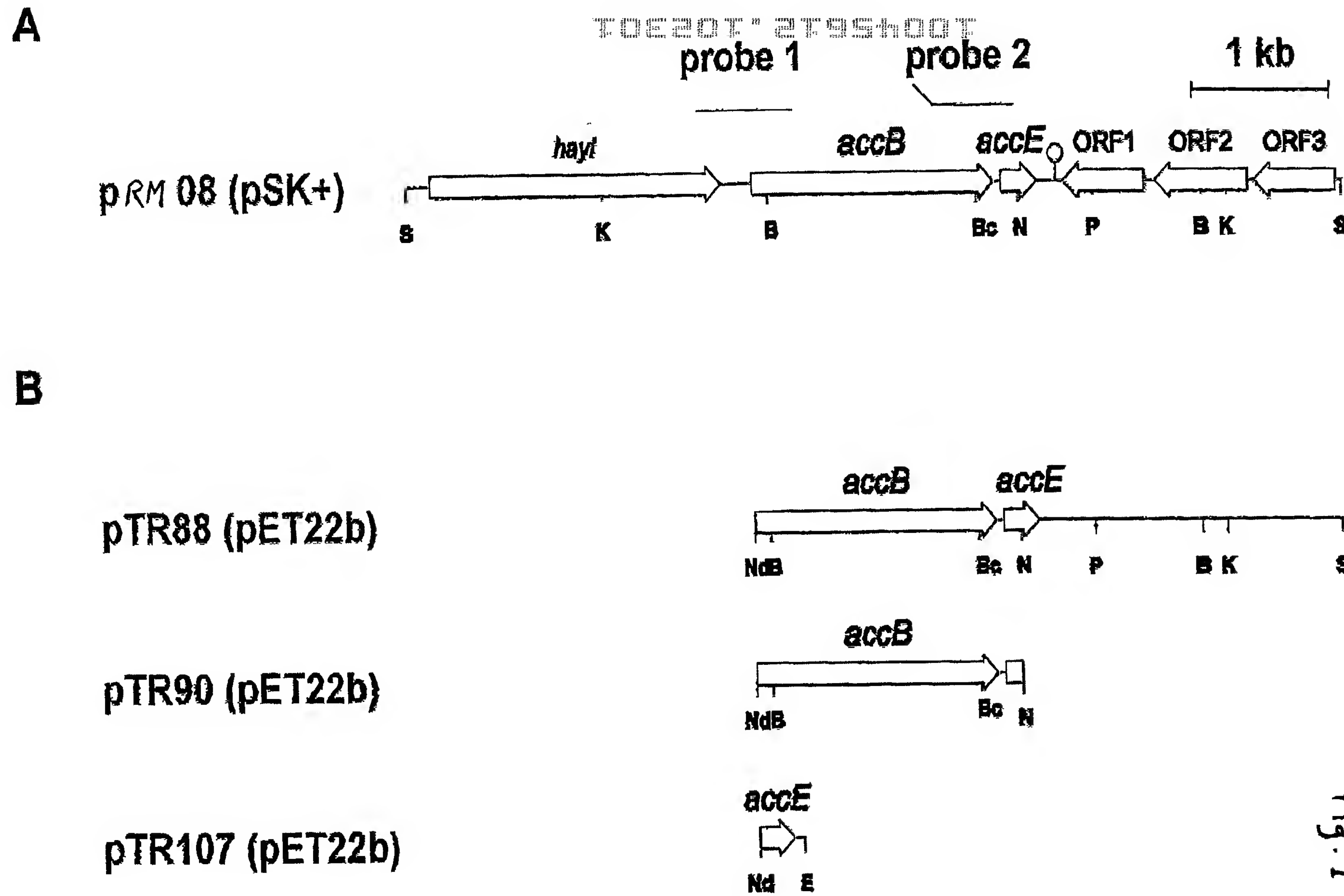
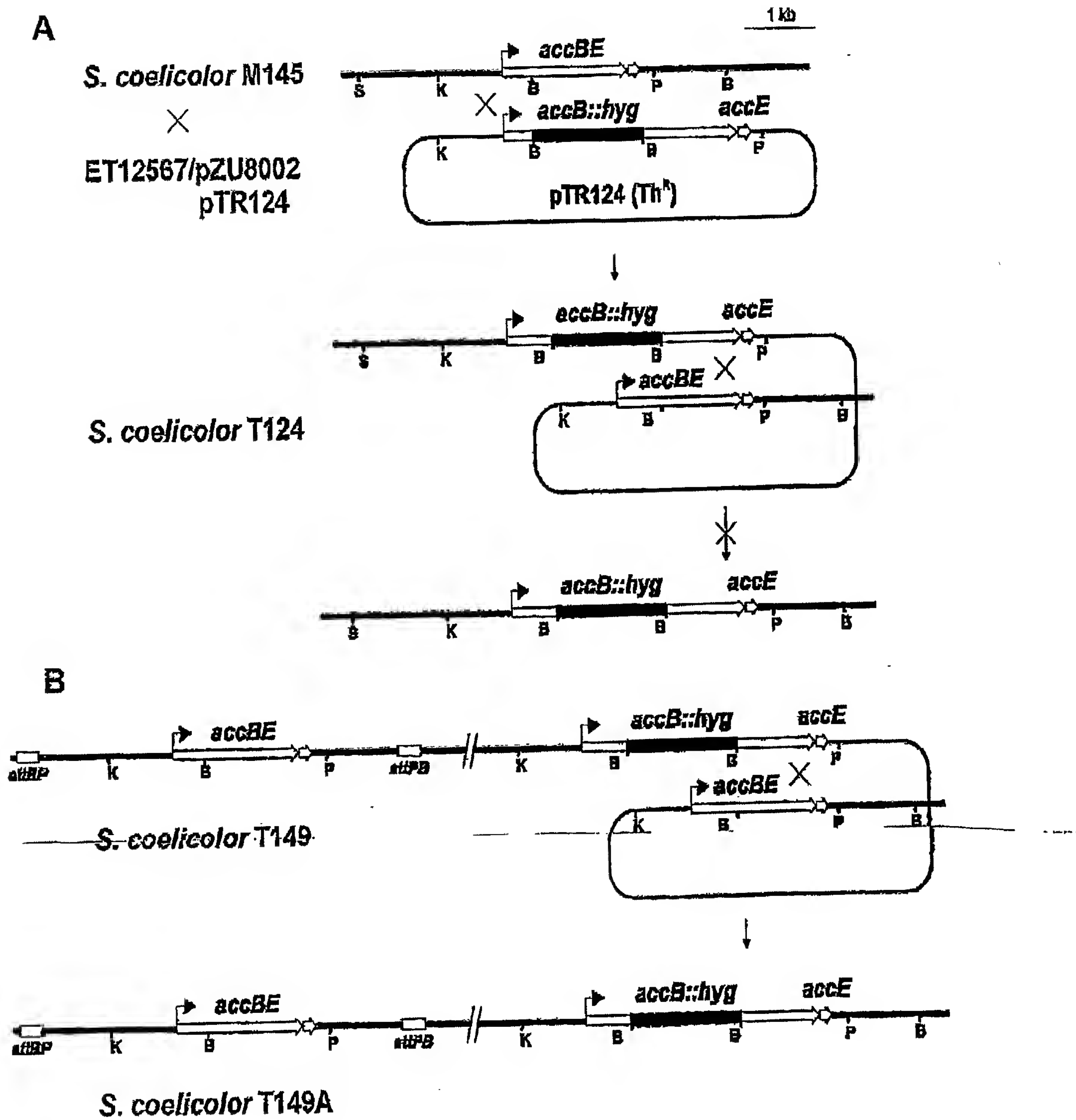

A
probe 1
probe 2
1 kb
pRM 08 (pSK+)
hayl
accB
accE
ORF1
ORF2
ORF3
S
K
B
Bc
N
P
B K
S
B
pTR88 (pET22b)
accB
accE
NdB
Bc
N
P
B K
S
pTR90 (pET22b)
accB
NdB
Bc
N
pTR107 (pET22b)
accE
Nd
E

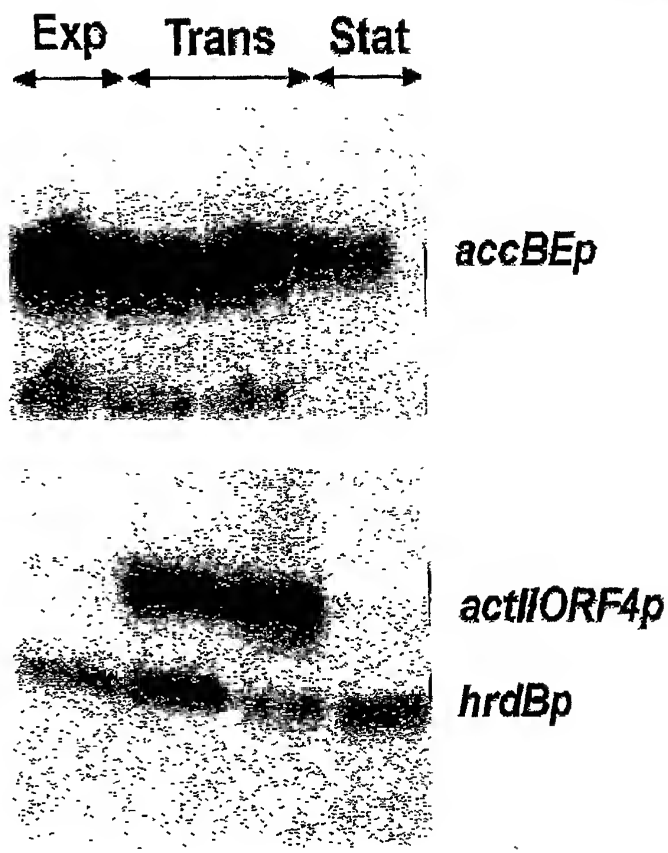
Fig. 1

Fig. 2



10045612 .102301

A



B

```
                                                   -35                  -10
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----------+---------+---------+---------+---------+---------+
TTTGCCCGGCCTCTGACATGCCTCAGCTGCCGAGCGTTAGGAACGAGCCGAAGCATCTCA
      accBEp
CGCTACATGACCGTTTTGGATGAGGCGCCGGGCGAGCCGACGGACGCGCGCGGGCGGGTG
----------+---------+---------+---------+---------+---------+
GCGATGTACTGGCAAAACCTACTCCGCGGCCCGCTCGGCTGCCTGCGCGCGCCCGCCCAC

[AccB]    M  T  V  L  D  E  A  P  G  E  P  T  D  A  R  G  R  V
```

C

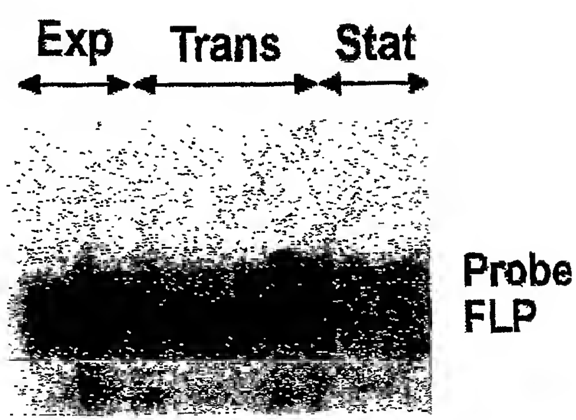


Fig. 3

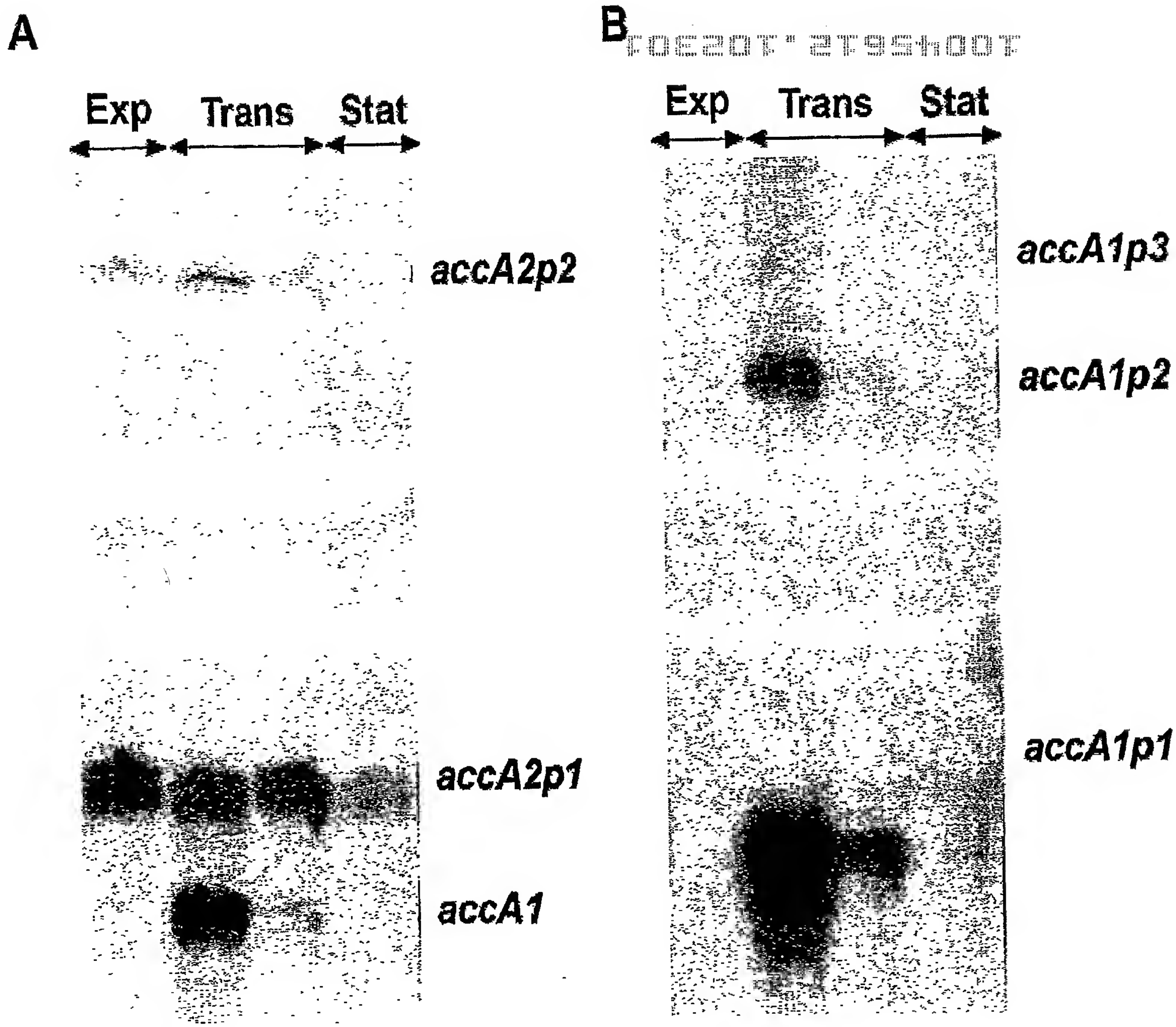
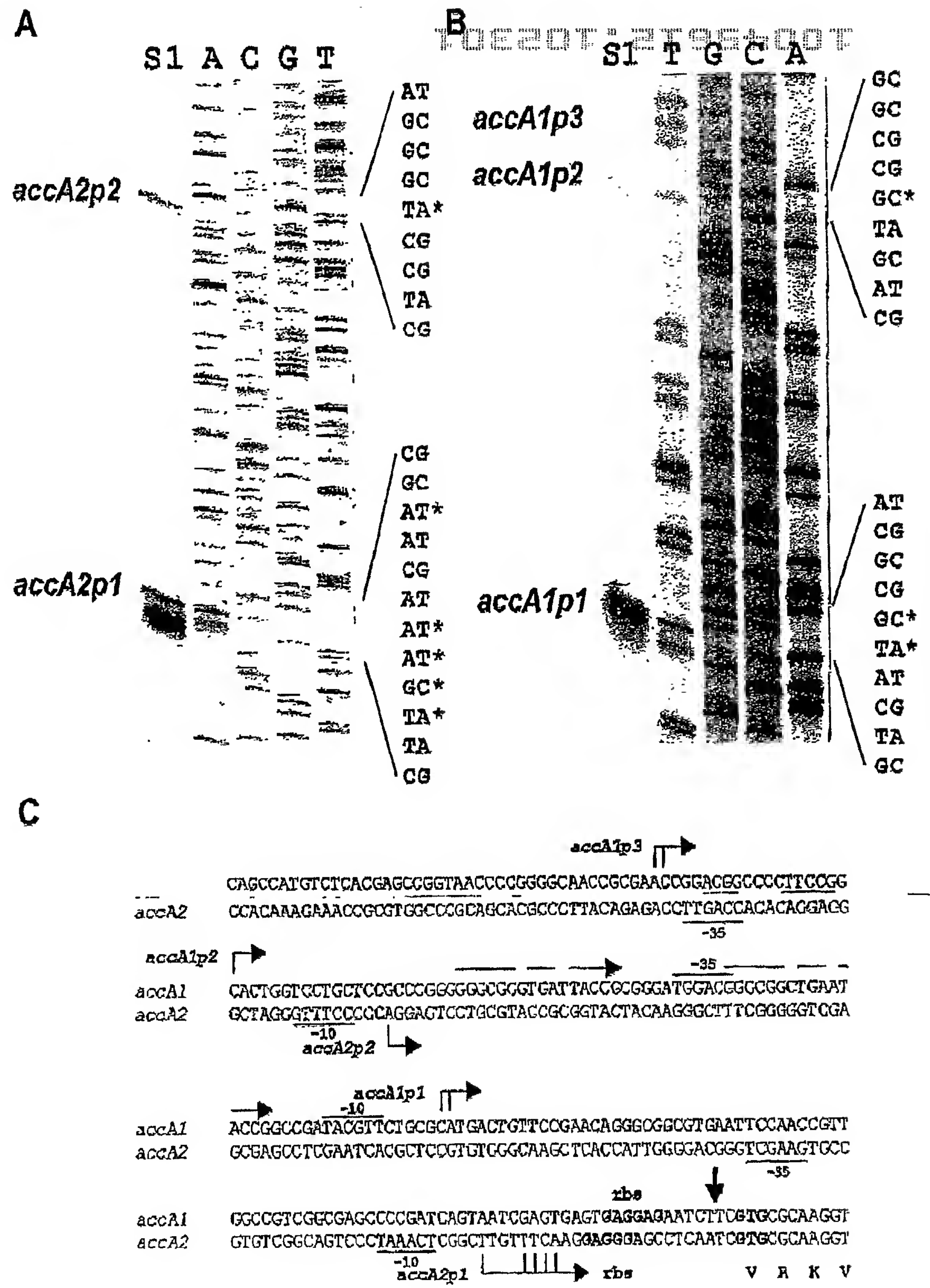

A
Exp
Trans
Stat
accA2p2
accA2p1
accA1
B
Exp
Trans
Stat
accA1p3
accA1p2
accA1p1

Fig. 4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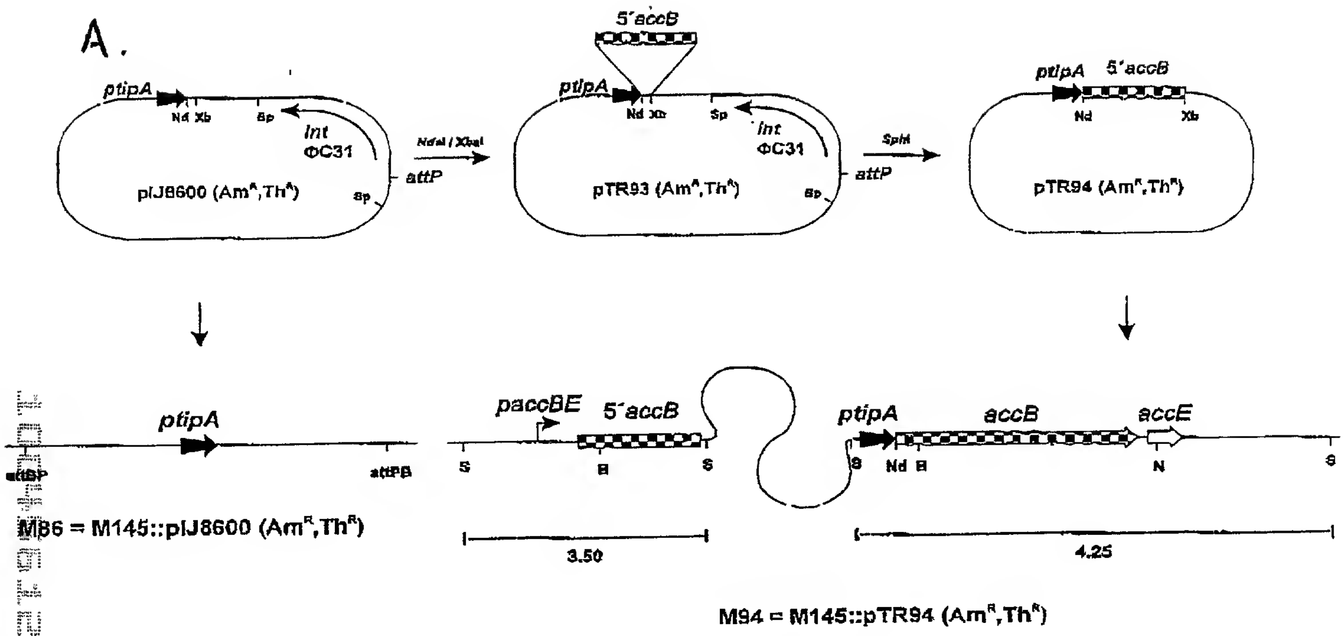
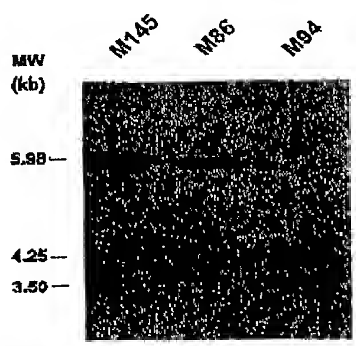
S1 A C G T
accA2p2
accA2p1
AT GC GC GC TA* CG CG TA CG
CG GC AT* AT CG AT AT* AT* GC* TA* TA CG
B
S1 T G C A
accA1p3
accA1p2
accA1p1
GC GC CG CG GC* TA GC AT CG
AT CG GC CG GC* TA* AT CG TA GC
C
accA1p3
CAGCCATGTCTCACGAGCGGGTAACCCCGGGGCAACCGCGAACCGGACGGCCCCTTCCGG
accA2 CCACAAAGAAACCGCGTGGCCCGCAGCACGCCCTTACAGAGACCTTGACCACACAGGAGG
-35
accA1p2
-35
accA1 CACTGGTCCTGCTCCGCCCGGGGGGCGGGTGATTACCGCGGGATGGACGGCCGGCTGAAT
accA2 GCTAGGGTTTCCCGCAGGAGTCCTGCGTACCGCGGTACTACAAGGGCTTTCGGGGGTCGA
-10
accA2p2
accA1p1
-10
accA1 ACCGGCCGATACGTTCTGCGCATGACTGTTCCGAACAGGGCGGCGTGAATTCCAACCGTT
accA2 GCGAGCCTCGAATCACGCTCCGTGTGGCAAGCTCACCATTGGGGACGGGTCGAAGTGCC
-35
rbs
accA1 GGCCGTCGGCGAGCCCCGATCAGTAATCGAGTGAGTGAGGAGAATCTTCGTGCGCAAGGT
accA2 GTGTCGGCAGTCCCTAAACTCGGCTTGTTTCAAGGAGGGAGCCTCAATCGTGCGCAAGGT
-10
accA2p1
rbs
V R K V
Fig. 5

Fig. 6

A.



B.

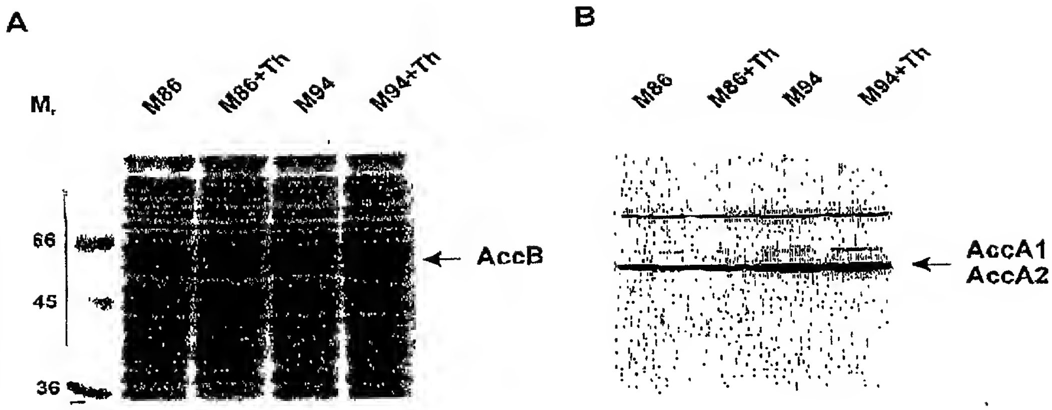


Construction and analysis of the *accBE* conditional mutant

A. Diagram showing the integration of pIJ8600 in strain M86 and the expected organization of the Campbell integration of pTR94 in M94. Restriction sites: B, *Bam*HI; N, *Not*I; Nd, *Nde*I; S, *Sac*I; Sp, *Sph*I; Xb, *Xba*I.

B. Hybridization analysis of Southern blot of *Sac*I-digested DNAs from M145, M86 and M94. The probe was the internal *Nde*I-*Xba*I fragment of *accB* showed in A.

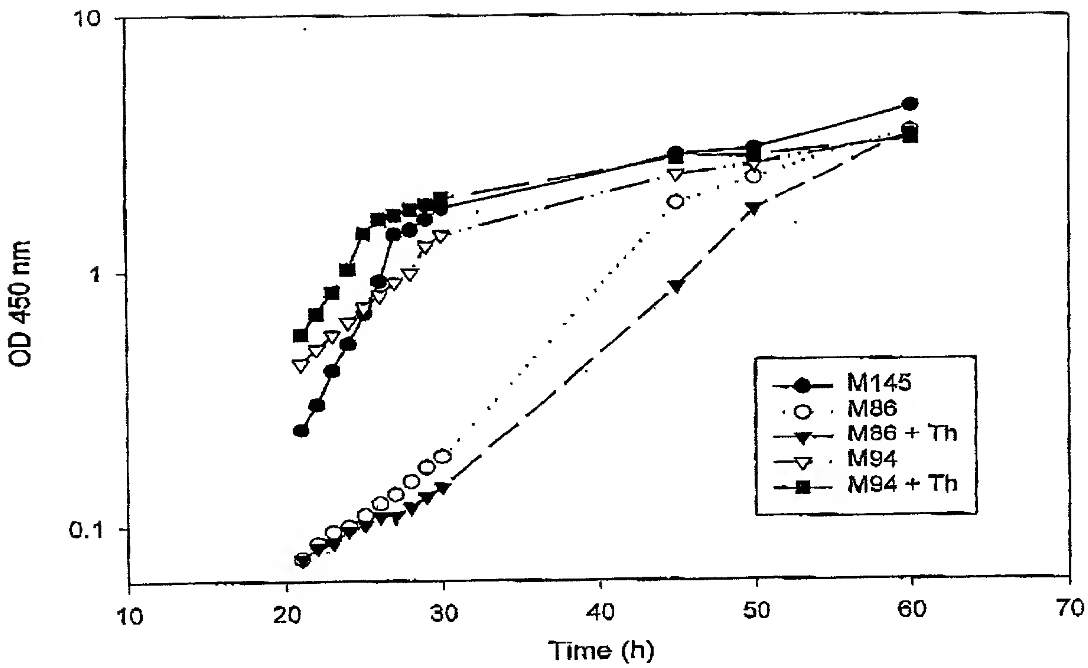
Fig. 7



Expression of the acyl-CoA components in M86 and M94

A. SDS-PAGE of cell-free extracts of *S. coelicolor* M86 and M94 strains grown in YEME medium containing 10 μg ml^{-1} Am with or without the addition of 5 μg ml^{-1} Th.
B. A duplicate of the SDS-PAGE gel showed in A was subjected to Western blotting and stained for biotinylated proteins by using alkaline phophatase-streptavidin conjugate.

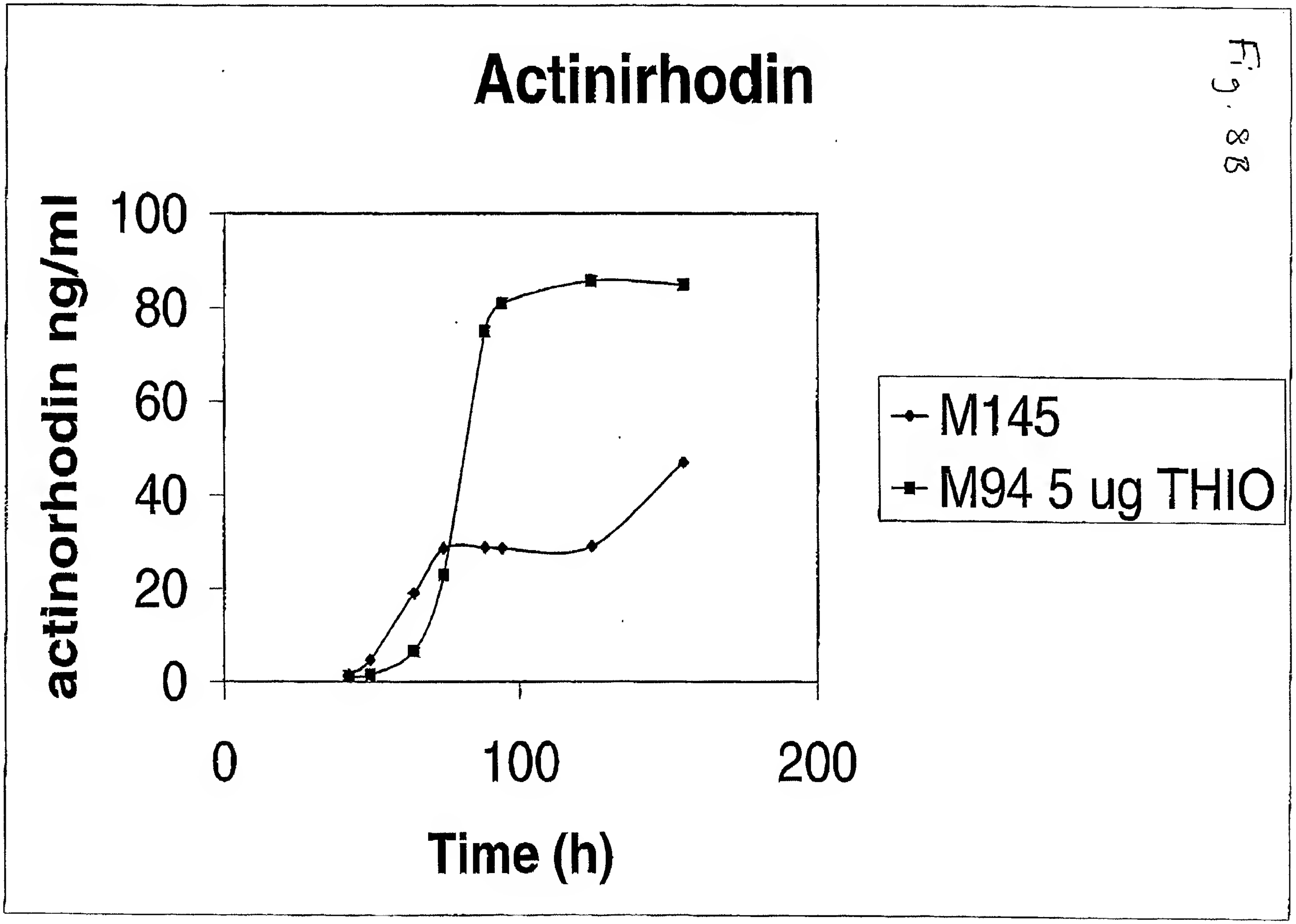
Fig. 8A



Growth curves of M145, M86 and M94 strains.

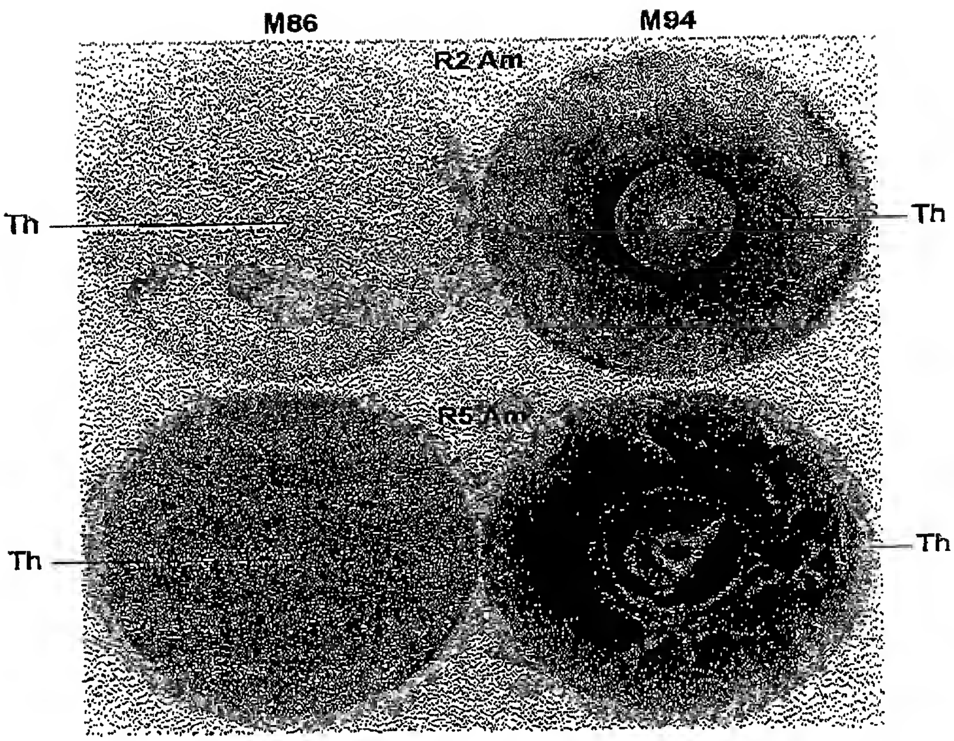
10^8 spores of strains M86 and M94 were inoculated in YEME medium containing 10 µg of Am or 10 µg ml^{-1} Am and 5 µg ml^{-1} of Th. 10^8 spores of M145 were inoculated in YEME. The growth was followed by measuring $OD_{450\ nm}$.

Fig. 8B



Actinirhodin
actinorhodin ng/ml
100
80
60
40
20
0
0
100
200
Time (h)
M145
M94 5 ug THIO

Fig. 9



Morphological and physiological differentiation of M86 and M94 in the precense of Th.
Spores of M86 and M94 were spread in R2 or R5 media containing 10 µg ml^{-1} Am. A drop containing 1 µg of Th was spotted in the centre of each plate. The picture shows the results obtained after the incubation of the plate at 30 °C for 48 h.

Fig. 10

TATTCTAGA**CATATG**ACCGTTTTGGATGAGGCGCCGGGCGAGCCGACGGACGCGCGGGCGGGTG
GCCGAGCTGCACGGGATCCGTGCAGCGGCGCTCGCCGGGCCGAGTGAGAAGGCGACGGCGGCGCAG
CACGCCAAGGGCAAGCTGACGGCACGTGAGCGCATCGAGCTGCTCCTGGACCCCGGCTCCTTCCGC
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CGGATCTTCGGCGGCGCGCTGGGCGAGGCCCACGCCACGAAGATCCACAAGATCATGGACATGGCC
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TTCATGGTCCGCGACACCTCGCAGATGTTCATCACGGGCCCGGACGTCGTCAAGGCGGTCACCGGC
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TTCGCCTACGACGACGAGGAGACCTGCCTCGCCGAGGTCCGCTACCTCCTCTCCCTCCTCCCGCAG
AACAACCGGGAGAACCCGCCCCGCGCCGAGTCCTCCGACCCCGTGGACCGCCGCTCGGACACCCTC
CTCGACCTGGTCCCGGCGGACGGCAACCGCCCGTACGACATGACCAAGGTCATCGAGGAACTCGTC
GACGAGGGCGAGTACCTGGAGGTCCACGAGCGTTG**TCTAGA**GGT

Fig. 11

A. AccA1

VRKVLIANRGEIAVRVARACRDAGIASVAVYADPDRDALHVRAADEAFALGGDTPATSYLDIAKVL
KAARESGADAIHPGYGFLSENAEFAQAVLDAGLIWIGPPPHAIRDRGEKVAARHIAQRAGAPLVAG
TPDPVSGADEVVAFAKEHGLPIAIKAAFGGGGRGLKVARTLEEVPELYDSAVREAVAAFGRGECFV
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AGYGGAGTVEFLVGMDGTIFFLEVNTRLQVEHPVTEEVAGIDLVREMFRIADGEELGYDDPALRGH
SFEFRINGEDPGRGFLPAPGTVTLFDAPTGPGVRLDAGVESGSVIGPAWDSLLAKLIVTGRTRAEA
LQRAARALDEFTVEGMATAIPFHRTVVRDPAFAPELTGSTDPFTVHTRWIETEFVNEIKPFTTPAD
TETDEESGRETVVVEVGGKRLEVSLPSSLGMSLARTGLAAGARPKRRAAKKSGPAASGDTLASPMQ
GTIVKIAVEEGQEVQEGDLIVVLEAMKMEQPLNAHRSGTIKGLTAEVGASLTSGAAICEIKD

A. AccA2

VRKVLIANRGEIAVRVARACRDAGIASVAVYADPDRDALHVRAADEAFALGGDTPATSYLDIAKVL
KAARESGADAIHPGYGFLSENADFAQAVLDAGLIWIGPPPHAIRDRGEKVAARHIAQRAGAPLVAG
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TETDEESGRETVVVEVGGKRLEVSLPSSLGMSLARTGLAAGARPKRRAAKKSGPAASGDTLASPMQ
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Fig. 11 (cont)

B. *accA1*

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Fig. 11 (cont)

B. *accA2*

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Fig. 12

A. AccB

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LRRHRATGFGLEAKKPYTDGVITGWGTVEGRTVFVYAHDFRIFGGALGEAHATKIHKIMDMAIAAG
APLVSLNDGAGARIQEGVSALAGYGGIFQRNTKASGVIPQISVMLGPCAGGAAYSPALTDFVFMVR
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B. *accB*

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GGCGCGCTGGGCGAGGCCCACGCCACGAAGATCCACAAGATCATGGACATGGCCATCGCGGCCGGT
GCCCCGCTGGTGTCGCTGAACGACGGCGCCGGCGCCCGTATCCAGGAGGGCGTCAGCGCGCTCGCC
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GACACCTCGCAGATGTTCATCACGGGCCCGGACGTCGTCAAGGCGGTCACCGGCGAGGAGATCACG
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GCCGTCATGGGCGCGGAAGGTGCCGCGAACGTCATCTTCCGCCGGCAGATCGCCGACGCCGAGGAC
CCCGAGGCCATGCGGGCGCGCATGGTCAAGGAGTACAAGTCCGAGCTGATGCACCCCTACTACGCG
GCCGAACGCGGTCTGGTCGACGACGTCATCGACCCCGCCGAAACCCGCGAGGTGCTGATCACGTCC
CTGGCGATGCTCCACACCAAGCACGCCGACCTGCCCTCCCGCAAGCACGGCAACCCGCCGCAGTGA

Fig. 13

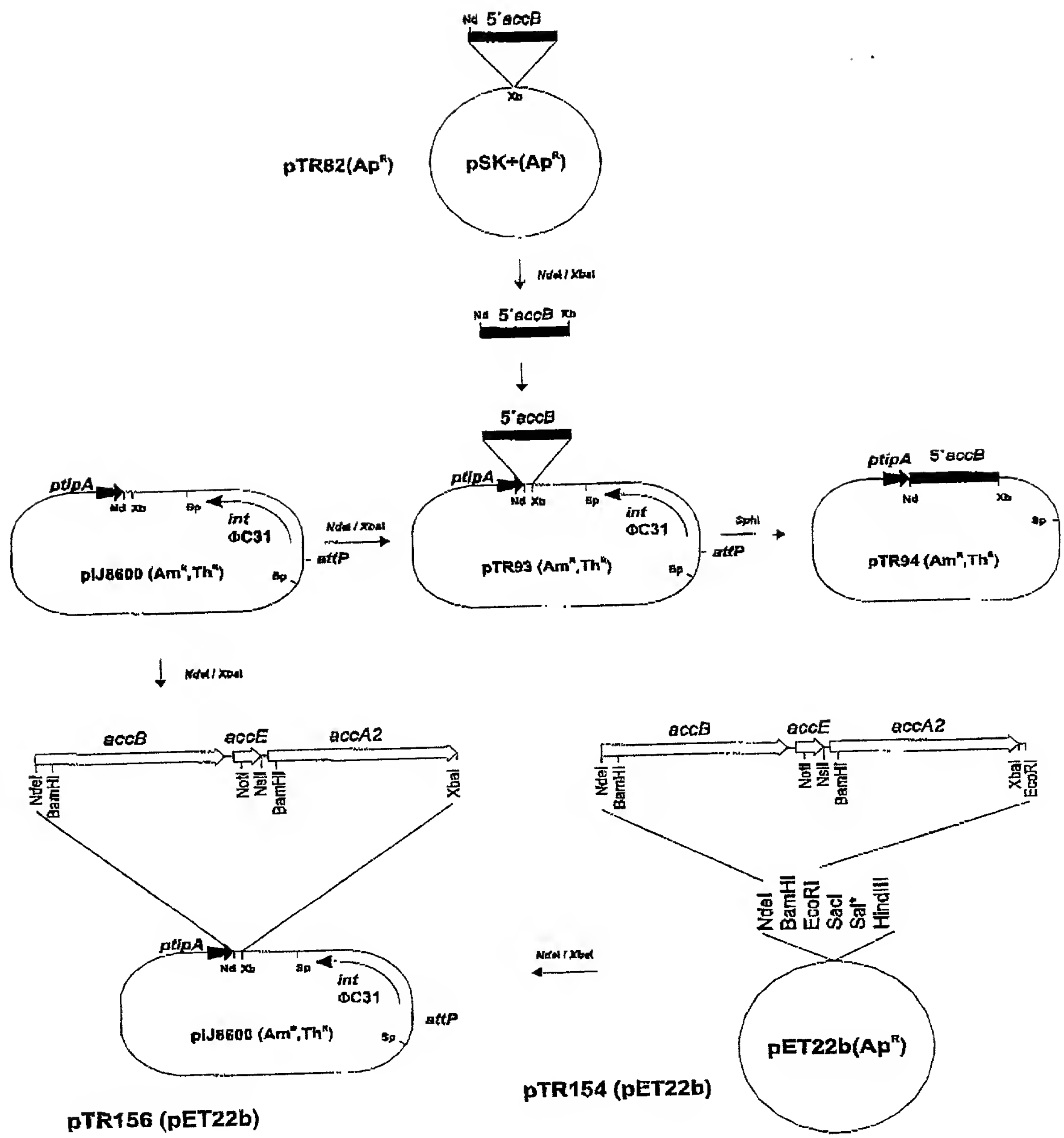
A. AccE

MSPADIRVEKGHAEPEEVAAITALLLARAAARPAEIAPTHGGGRARAGWRRLEREPGFRAPHSWR

B. *accE*

ATGTCCCCTGCCGACATCCGCGTCGAGAAGGGCCACGCCGAGCCCGAGGAAGTCGCCGCC
ATCACGGCCCTCCTCCTGGCCCGCGCCGCCGCCCGCCCCGCCGAGATCGCGCCGACCCAC
GGCGGCGGCCGCGCCCGCGCCGGCTGGCGCCGCCTGGAACGCGAGCCGGGCTTCCGCGCC
CCGCACAGCTGGCGCTGA

Fig. 14



Nd 5'accB
Xb
pTR82(Ap^R)
pSK+(Ap^R)
NdeI / XbaI
Nd 5'accB Xb
5'accB
ptipA
Nd Xb
Sp
int
ΦC31
pIJ8600 (Am^R,Th^R)
attP
NdeI / XbaI
pTR93 (Am^R,Th^R)
SphI
ptipA 5'accB
pTR94 (Am^R,Th^R)
accB
accE
accA2
NdeI
BamHI
NotI
NsII
XbaI
EcoRI
SacI
SalI
HindIII
pET22b(Ap^R)
pTR154 (pET22b)
pTR156 (pET22b)